OFFICE OF SCIENCE AND TECHNOLOGY POLICY

Request for Information; Identifying Critical Data Gaps and Needs to Inform Federal Strategic Plan for PFAS Research and Development

AGENCY: Office of Science and Technology Policy (OSTP).

ACTION: Notice of Request for Information (RFI).

SUMMARY: The Office of Science and Technology Policy (OSTP) requests input from all interested parties to identify data gaps in research and development regarding several aspects of per- and polyfluoroalkyl substances (PFAS). This information will be used to inform a strategic plan for Federal coordination of PFAS research and development and, in compliance with Section 332 of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (FY21 NDAA), the interagency strategy team on PFAS will also develop an implementation plan for Federal agencies.

DATES: Interested persons and organizations are invited to submit comments on or before 5:00 p.m. ET, [INSERT DATE 45 DAYS AFTER PUBLICATION].

ADDRESSES: Interested individuals and organizations should submit comments electronically to JEEP@ostp.eop.gov and include "RFI Response: PFAS Strategic Plan" in the subject line of the email. Email submissions should be machine-readable [PDF, Word] and should not be copy-protected. Submissions received after the deadline may not be taken into consideration.

Instructions: Response to this RFI is voluntary. Each individual or organization is requested to submit only one response. Commenters can respond to one or many questions. However, responses must not exceed a total of five (5) pages in 12 point or larger font, with a page number provided on each page. Submissions should clearly indicate which questions are being addressed. A bibliography does not count towards the page limit. Responses should include the name of the person(s) or organization(s) filing

the response. Responses containing references, studies, research, and other empirical data that are not widely published should include copies of or electronic links to the referenced materials. Responses containing profanity, vulgarity, threats, or other inappropriate language or content will not be considered.

Comments submitted in response to this notice are subject to the Freedom of Information Act (FOIA). No business proprietary information, copyrighted information, or personally identifiable information should be submitted in response to this RFI. Please be aware that comments submitted in response to this RFI, including the submitter's identification (as noted above), may be posted, without change, on OSTP's or another Federal website or otherwise released publicly.

In accordance with FAR 15-202(3), responses to this notice are not offers and cannot be accepted by the U.S. Government to form a binding contract. Additionally, the U.S. Government will not pay for response preparation or for the use of any information contained in the response.

FOR FURTHER INFORMATION CONTACT: For additional information, please direct questions to Melanie Buser at JEEP@ostp.eop.gov or 202-456-4444.

SUPPLEMENTARY INFORMATION:

Background: The Biden-Harris Administration is committed to combatting PFAS pollution and to ensuring access to clean drinking water for all Americans[1][2]. OSTP has been tasked under Section 332 of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (FY21 NDAA) (Public Law 116-283) with developing a strategic plan for PFAS research and development. This strategic plan should identify "scientific and technological challenges that must be addressed to

[1] FACT SHEET: Biden-Harris Administration Launches Plan to Combat PFAS Pollution | The White House
[2] FACT SHEET: Biden-☐Harris Administration Combatting PFAS Pollution to Safeguard Clean Drinking Water for All Americans | The White House

understand and to significantly reduce the environmental and human health impacts of PFAS and to identify cost-effective —

(i) alternatives to PFAS that are designed to be safer and more environmentally friendly;

(ii) methods for removal of PFAS from the environment; and

(iii) methods to safely destroy or degrade PFAS;"

and subsequently to establish "goals, priorities, and metrics for federally funded PFAS research and development that takes into account the current state of research and development."

This strategic plan will be the precursor to an R&D implementation plan for Federal agencies. Two agencies currently have existing agency plans that speak to PFAS R&D: the USGS Strategic Science Vision[3] and the EPA PFAS Strategic Roadmap[4]. Other Federal agencies may develop their own PFAS R&D plans and may use answers from this RFI to inform future directions.

For purposes of this RFI, the term per- and polyfluoroalkyl substances or PFAS has the definition provided in Section 332(g)(1) of the FY21 NDAA: "(A) man-made chemicals of which all of the carbon atoms are fully fluorinated carbon atoms; and (B) man-made chemicals containing a mix of fully fluorinated carbon atoms, partially fluorinated carbon atoms, and nonfluorinated carbon atoms". PFAS have been widely used in industry and consumer products since the 1940s because of their useful properties. Examples of products that use PFAS include food contact materials (e.g., packaging, cookware), stain and water-repellant fabrics and carpets, and firefighting foams. PFAS may be present in water, soil, air, food, and other materials. Research has

[3] https://pubs.er.usgs.gov/publication/cir1490

[4] https://www.epa.gov/system/files/documents/2021-10/pfas-roadmap_final-508.pdf

shown that PFAS are highly stable chemicals that accumulate in people, animals, and the environment over time, and in several cases, have been shown to cause adverse health effects.

Scope: OSTP invites input from States; Tribes; territories; individuals, including those belonging to groups that have been historically underserved, marginalized, or subject to discrimination or systemic disadvantage; local governments; appropriate industries; academic institutions; nongovernmental organizations; and international organizations with expertise in PFAS research and development, treatment, management, and alternative development.

Information Requested: Respondents may provide information for **one or as many topics** below as they choose. **Submissions should clearly indicate which questions are being addressed**. For the purpose of this RFI, ‘‘PFAS research and development’’ includes any research or project meeting one or more of the following goals:

(A) The removal of PFAS from the environment, in part or in total;

(B) The safe destruction or degradation of PFAS;

(C) The development and deployment of safer and more environmentally-friendly alternative substances that are functionally similar to those made with PFAS;

(D) The understanding of sources of environmental PFAS contamination and pathways to exposure for the public; and/or,

(E) The understanding of the toxicity of PFAS to humans and animals[5].

Given PFAS are a large, diverse class of substances, making it difficult to comprehensively evaluate the environmental and human impacts, OSTP is interested in responses to the following questions:

1. Should the USG consider identifying priority PFAS when developing a strategic plan for PFAS research and development? If so, what criteria should be used to identify priority

[5] https://www.congress.gov/116/plaws/publ283/PLAW-116publ283.pdf

PFAS for research and development (e.g., tonnage used per year; releases to the environment per year; toxicology or other human or environmental health concerns; national security or critical infrastructure uses)?

2. Are there criteria which could be applied across the five research goals identified above, or should specific criteria be developed for each individual research goal?
3. Based on the definition of PFAS in this RFI, what are the scientific, technological, and human challenges that must be addressed to understand and to significantly reduce the environmental and human impacts of PFAS and to identify cost-effective:
    a. Alternatives to PFAS that are designed to be safer and more environmentally friendly;
    b. Methods for removal of PFAS from the environment; and
    c. Methods to safely destroy or degrade PFAS?
4. Are there specific chemistries and/or intended uses that PFAS provide for which there are no known alternatives at this time?
5. What are alternatives to the definition of PFAS provided in this RFI? What are the implications of these alternative definitions on possible remediation strategies?
6. What should be the research and development priorities for accelerating progress, improving efficiency, and reducing the cost of: analytical methods, detection limits, non-targeted detection?
7. What studies would yield the most useful information and address the current gaps in understanding PFAS health effects in humans (e.g., *in vitro*, animal toxicological, and epidemiological studies)? Which health effects should be prioritized? What additional impacts beyond health should be prioritized? Social scientific approaches are welcome in addressing this question and any others, as appropriate.
8. One challenge across all research goals is PFAS mixtures and formulations. Currently, more information is needed to understand the identity, composition, occurrence, source,

or effects on human health and the environment for mixtures of PFAS found in environmental media. Additionally, more information is needed to understand the best way to remediate or destroy media contaminated with multiple PFAS. What should be the research and development priorities for accelerating progress in these areas?

9. What goals, priorities, and performance metrics would be valuable in measuring the success of National, federally funded PFAS research and development initiatives relating to:
    a. The removal of PFAS from the environment;
    b. Safely destroying or degrading PFAS; and
    c. Developing safer and more environmentally-friendly alternatives to PFAS?
    d. Mitigating negative human effects of PFAS, whether related to health or additional domains?

Dated: July 7, 2022.

Stacy Murphy,

Operations Manager.

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